Response to Office Action dated 5th September, 2002.

Response to USPTO Office Action dated 5th September, 2002 by Raymond J. Bayerl Primary Examiner, Art Unit 2173. This response compiled by the inventor Dr. Steven Ericsson Zenith. Patent Application Serial number 09/504,327

1. Applicant has not complied with one or more conditions for receiving the benefit of an earlier filing date under 35 U.S.C 120 as follows: At page 1, line 1, applicant's reference to a "related application" contains the uncertain "US Serial No. (unassigned)".

Response: The relevant serial number is: 09/415,956 "A Social Interface for Internet / Television" and can be shown to derive from the quoted provisional application 60/103,765 filed 9th October, 1998.

The claims in 09/415,956 refer to the technology we refer to as "Chattercast™" used in part to implement the preferred embodiment discussed in the current application. For reference, the recently issued US Patent # 6,519,771 deals with a live chat implementation of "Click-Chat™" used by 09/415,956 to offer responses in transcripts and also discussed in this application.

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following figures (and their reference numerals), not mentioned in the description: figs 5, 7 - 11, 15. Also, at page 17, the discussion of reference numerals 701, 702 does not appear to correspond to the items so labeled in the figures.

A proposed drawing correction, corrected drawings, or amendment to the specification to add the correct figure numbers and reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Response:

The unreferenced diagrams are residual from application 09/415,956 of which this application is a continuation. They were included in error or perhaps, to illustrate technology behind the preferred embodiment - described in detail in application 09/415,956.

The accompanying amendment has removed the irrelevant diagrams which are in the parent application 09/415,956, and

incorporated thus by reference to that application. The diagrams have been renumbered and the references corrected appropriately.

The references to 701 and 702 should have referred to 601 and 602 in FIG 6 that originally appear on the same page as FIG 7.

In the amendment FIG 6 becomes FIG 5 with the aforementioned correction made in the text, 12 becomes 6, 13 becomes 7, 14 becomes 8, 16 becomes 9, 17 becomes 10, 18 becomes 11 and 19 becomes 12.

3. The use of the trademark "Web TV" has been noted in this application (at pages 2, 4, 6, 26, and also in claims 1 - 15). It should be capitalized wherever it appears and be accompanied by the generic terminology. The examiner notes the occurrence of "web TV" at some points, when this is in fact a trademark of Microsoft Corporation.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

Response:

My sincere apologies for this confusion. Microsoft® and Web TV® were customers of ours at the time of filing, and are licensees of our technologies. We have worked with them closely during the development of their TV solutions, however, familiarity in no excuse.

We greatly respect the rights of Microsoft® with regard to their trademarks and the USPTO's natural concern that they be respected. The text in the attached revision is amended accordingly and further explanation follows.

4. (part 1) Claims 1 - 15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As noted above, applicant makes use of the trademark "Web TV" in claims 1 - 15. However, this does not provide a clear recitation of the intended limitation of the claim. The WEB TV system, for example, could (and indeed, likely *will*) undergo changes in the forthcoming years, such that the meaning of the claim will not remain consistent.

Response: The confusion results from an occasional generic use of the term "web TV", at the time referring to any television oriented solution whose services are provisioned via the internet and world wide "web" protocols, and whose output is displayed on a television coincident with broadcast or other audio/video media (either directly on the same display - overlaid on the audio/video or "picture-in-picture" - or on a parallel video input, or conventional TV Channel).

It should be clear, however, that the use of "web TV" in both cases in claims 1 and 6 are meant inclusively as the claims

state: as a "means for displaying the affinity characters and content associated with the character on a multi media device."

The intent was to refer to the display on television of computer based multi media, and not display on television through any particular enabling device.

Therefore, a simple amendment to claim 1 and 6, removing the word "web" in the two places that they appear, would make no substantive alteration of the claims and addresses the examiner's concern under 35 U.S.C. 112, second paragraph.

However, these changes are superceded by amendments made in the following remarks.

As the examiner rightly observes, the systems in this arena will undergo future change and nowhere has this been truer than in the expanding definition of Television as a multi media presentation device over recent years. The new generation of television today carries the spectrum of meaning that includes "dumb" displays designed to operate with, and connect into, a system of components rather like traditional HiFi audio, through to sophisticated standalone televisions that include a display, a computer, high definition TV receiver, mass storage, and connectivity such as enabled by Firewire and Ethernet.

4. (part 2)

Also in independent claim 1, 6, the phrase "or the like" at the last line does not clearly set forth just how similar the intended additional devices might be. A similar problem exists with "such as" (claim 6, line 8).

Response: I concur with the examiner that such ambiguous references are undesirable. The terminology in claims 1 and 6 refers to display devices and "such as … and the like" were intended to encompass broad examples of multi media and media presentation devices as they exist today, and as they and the terminology describing them may evolve in the future. In the amended claims we have specified the meaning exactly to mean any media presentation device (audio, audio/video etc ...) sufficiently capable of presenting the affinity character.

To clarify the claims, therefore, per the language in the disclosure and the intent of the original claims, and without introducing new material, the ambiguous wording is eliminated in the amended claims.

4. (part 3)

Finally, at claims 9, 12 - 13, applicant claims an invention in which "user privacy" or "anonymity" "is protected" and a system that is "non-privacy invasive". However, it is unclear how a market-data collection system that considers individual user interactions with the programming categories can have such a property. While the user may not readily *suspect* that privacy is being invaded, the fact remains that it is, internal to the system.

Response: I understand and appreciate the examiners comments here.

To clarify, in claims 9, 12, 13, there is no identifiable correspondence between the actions of an individual user and the recorded interactions with the interface as seen by the behavior of the character.

The information gathered in claim 9 permits the server level production refinement of the interface, since the data identifies which characters are proving successful mediators and which content is successfully mediated.

The information gathered in claim 12 permits the character to act as a proxy for users, permitting the user to expressly ask the character to act as proxy. For example, by permitting the user to request the affinity character to cast a vote on the user's behalf.

The information in claim 13 is similar to claim 12 except that it specifically calls out the use of character proxy "for providing sponsors with information of commercial value." For example, the user may "ask" the affinity character to express a like, a dislike or other preference.

In all three claims the characters act as proxy for the end user or group of end users.

The character will be an aggregate proxy for multiple individuals using a shared device - for example, in a family, hotel or in any public installation.

In the case of Herz and Bingham the user identity is known. Our invention mediates perfectly well without this knowledge.

We may know, without intruding on the privacy of individuals, the aggregate priority and dispositions of those individuals using the interface without knowing any other detail about them.

It is the case that a determined agency, able to relate the identity and ownership of the device running our invention with our recorded actions, could deduce information that infringes on the users privacy - for example, concluding that a certain household selects certain types of content. However, to make this infringement of privacy requires that a secondary system of information including the user's identification information be co-joined and corresponded with our invention, for example, in the co-joining made between systems in a commercial transaction or device level subscription.

In our preferred embodiment, for example, where the device delivers satellite or cable television there exist no such unions.

In these cases the interface between the information system containing the user's identification information and our system is disjoint. The character simply acts as an interface provider presenting interface elements, such as choices, text inputs and the like, required for data entry to the secondary system which pass to the secondary system unrecorded.

5. The following quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Response: noted

6. (Part 1) Claims 1 - 17 are rejected under U.S.C. 103(a) as being unpatentable over Herz et al. (Herz; US #6,088,722) in view of Bingham et al. ("Bingham"; US #5,799,298).

Response: I will challenge this assessment by concurring that common broad problem statements are addressed by these disclosures, but that the means, methods and mechanisms of the solution that each provide is distinct. Further, that view of Herz and Bingham would obviously lead to solutions distinct from our own, if Herz would, in fact, find synergy with, or use for the approach in Bingham - a position that tolerates some doubt since we will highlight incompatibilities between the two.

The general problem statements I refer to are as follows and may be considered challenges of a general nature in information science and interaction design:

S.1 "Given a significant universe of available information and content, how does one limit the selection of offered content such that a user may identify relevant and interesting content quickly?"

S.2 "Given a set of applications, which includes an application providing a solution to S.1, how can the user of said applications state or imply their preferences such that the application may optimally configure itself for said user."

Our disclosure and the prior art in the accompanying Notice of References Cited all may be said to offer solutions to these problem statements. However, in all cases the means, methodologies and mechanisms are distinct and the use of emblematic characters in Bingham and Kayahara (US #6,405,206) provides only a superficial similarity with our invention. In my specific responses I will demonstrate the following distinctions for our invention over the prior art:

R6.1. No profile or identity of individual users is required or maintained (Herz, Rapaport US #5,890,152).

R6.2. For claims 1-15 no computational processing of set data (Herz and Bingham) or other search methods or search refinement processing mechanisms (Kayahara) or user input (Khoo US#6,434,747) is required to determine the mapping of content to affinity.

Affinity, in our invention, is determined by associations established in a relational database, and designed and asserted by editorial choice and production standards for the created affinity characters according to the well-known rules of theater (e.g., stay in character). These demand that a character present only content that represents the personality defined by their known and established characteristics per a known storyline, personality or celebrity, where that content may be prioritized by paid sponsorship. Production rules and affinity universe direction can be guided by feedback from the interface that shows how well the interface meets production and sponsorship goals (claims 6 - 14).

R6.3. Our invention uses simple, distinct mechanisms unlike the prior art to address the problem statements.

R6.4. The pragmatic scope of our technology has objectives not covered in the prior art.

Our technology provides for the guided production of the interface, affinity grouping and interaction experience, not the automation of the content to affinity mapping process. This is desirable when fuller control over the interface experience is required while delivering a service to largely passive audiences using the interface. These audiences, be they on Television or the Internet, expect the interface to also entertain, for example, when used in conjunction with Television viewing (see our application 09/415,956 for a description of the technology used to build and sustain these dialogues).

The simplicity of our design is intended to reduce logistical and technological complexity, by reducing engineering, hardware, software and manufacturing costs and the costs associated with deployment of devices depending primarily on the interface for presentation to, and interaction with, very large public audiences (such as those viewing broadcast media via satellite or cable Television or the Internet).

R6.5 Claims 1 - 5, can deliver the invention in a broadcast only environment, i.e., one in which there is a "slim" or absent "back channel".

For example, in a version of the preferred embodiment interface elements and data are broadcast to satellite TV receivers in data channels alongside the channels delivering media content. Our invention depends on service production not local to the user to provide data and conversational elements that keep the interface compelling and current. That data may be broadcast to users without a "back channel" and effectively deliver the invention.

R6.6 The interface described by our invention is, by design, and with the appropriate universe of affinity characters specified, immediately usable by individuals from diverse educational and economic backgrounds requiring no preparation or intellectual assertion by them.

In the following responses I address the specific issues raised by the examiner.

6. (Part 2)

As in claim 1's provision of "affinity based categorization of internet or television content", Herz similarly provides for the receipt of desired movies and other forms of data from the network (Abstract), according to characteristics in use for characterizing video programming, these to include film genres such as westerns, comedies, dramas, foreign language, etc. as defined by the American Film Institute (col 11, line 41 - col 12, line 6), so that the characteristics of content predict the attractiveness of each video program, movie, or other data to each prospective customer. Thus, Herz, working with a "universe of content", has the end result of returning desired content, and a "virtual" channel is created to receive the program selected to match that customer's interests (col. 48, lines 18 - 34).

Response:

In view of my previous discussion I hope it is clear that the means, methodologies and mechanisms in Herz are distinct even though Herz is targeting the same general problem statements. Herz use of AFI categorization, in particular, does not correspond to affinity categorization but is, rather, genre

categorization. Our categorization is not bound in this way or constrained by, or dependent on, predefined categorization conventions. An affinity character focus of categorization is character preference, as determined by the expressed personality and will be across genre. Indeed, the content assigned to a character aids in the longer term development of the character's personality and will become familiar to users of the invention in use.

Herz is a "collaborative filtering" patent. Collaborative filtering is dependent on statistical aggregations of choices made by individuals making similar content selections. The Herz approach depends upon the development of "customer profiles" and an "agreement matrix" that represents similarity of choice between multiple users requiring the intrusive observation of user behavior. It depends in all its aspects and claims on the gathering and processing of data and the identification of the user so that the user may be explicitly targeted.

The nature of the affinity established programmatically by Herz is singular and closely bound to the targeted user - developing an affinity intended to be a close match to the targeted user. Such an affinity may indeed be presented by a

character based interface, as may be suggested not only in view of Bingham but any such interface in the extensive prior art broadly considered "social interfaces", and frequently based on the observations of Stanford Professors Nass and Reeves referenced in our filing.

However, since the affinity is derived programmatically, and necessarily prior to any character development, such an interface in the light of Herz demands that the character cannot be "emblematic" (claims 1 and 6) but must be representative of the user, or represent a close likeness to the user, or that the character represent that the selections will be preferred by the user, independent of the presenting character's personality.

Bingham would certainly suggest this approach in such a combination with Herz since Bingham requires that the user express such a "most like" relationship or implies a "most like" relationship from the selection - the user being directed explicitly, encouraged or expected to select a "most like" character.

Bingham's goals are quite distinct from the goals of our interface. That Bingham is also a character based interface is only a superficial similarity.

The goal of Bingham is to "extract a computer user's preferences" (Abstract) - and does so by requiring that a user "express how much likeness exists between themselves and a set of metaphoric graphical objects" (Summary, 2. line 36). Sets are then used in a "blending of each of said multi-trait graphical object attributes based on said user values to provide a weighted evaluation" (Claim 1, line 18).

The identification in our filing does not imply a "most like" correspondence and is the more natural "emblematic" (claims 1, 6) identification found everyday between a user and friends, colleagues, mentors and heroes. The characters represent affinity in their own right, according to their preference and not the user.

The Herz interface will set an expectation in the user, when the mechanism is known (such features are often touted), that it will draw programmatically "sensible" or "attractive" selections based on the subjective behavior of the user and users with whom a programmatic correlation can be found. Since the information known about a user is necessarily incomplete in

a fuller world view, the selections offered must necessarily, at times, be invalid, redundant or irrelevant.

When the interface fails in this way for an individual user, as it must, the user's expectation is disappointed and this reflects negatively on the interface, service and product delivering the technology.

Bingham faces a similar dilemma, but is additionally handicapped because the Bingham social interaction will evoke a social response. In Bingham's case the interface does not just get it wrong, it's "stupid". Stanford Professors Nass and Reeves, referenced in our filing, point out repeatedly that when social elements are introduced in an interaction "the stakes in the interaction are significantly higher" (quoted from personal conversations with Professors Clifford Nass and Byron Reeves, echoed in public statements).

The technology in our disclosure sets no expectation of likeness. The affinity characters represent themselves - and are assembled by editorial and production choices that focus on the presentation of a well defined affinity character. Content is assigned to emblematic affinities true to the creative development of that character in a relational database that

records content metadata and the affinity characters associated with it. The interface does not propose to know what the user wants. Claims 1 - 15 do not solicit a correspondence between their likes and dislikes, and those of the user for the purpose of providing preference information as Bingham does. Simply put, to do so would break the well known rules of theatre.

Just as in real life we tolerate differences in the temperament and tastes of our real friends, so users tolerate differences and tastes in the character they choose to mediate their access to content.

6. (part 3) While the dialog conducted with the Herz customer will discover characteristics relating to a profile, initially obtained according to several ways, such as by zip code or other characteristic demographic information or by monitoring what customers watch (col 12, lines 7 - 58), Herz does not **explicitly** show a "character emblematic of a specific category", "wherein each character is associated with and mediates a subset of the universe of content". However, the selection of a graphical "affinity group character" occurs in the system for establishing pattern matching and differentiation disclosed in Bingham. In particular, the user is given a choice of one of the characters such as shown in fig 3, these having differing profile definitions (col 4, lines 13 - 52), with the computer user determining and indicating who are they most like (col 3, lines 9 - 40).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the applicant's invention to represent choices in profile definition, useful to Herz's customization, in the form of pre-defined characters as per Bingham because this creates a more intuitive interface for

specification of that content the user is ultimately interested in viewing.

Response: Please note that there is an obvious mismatch between Herz and Bingham, since Bingham requires a predetermined characterization and Herz cannot predict the characterization, since it arises programmatically (discussed earlier).

One can image the obvious use of Bingham to seed the Herz application - as intended by Bingham. However, this obvious combination would not produce equivalence to our disclosure.

The programmatic formation of affinity in Herz constitutes a clear distinction between our disclosure in which (claims 1 and 6) "a plurality of affinity based categorizations, each associated with a character emblematic of a specific category" and any invention based on Herz.

Bingham, who does create emblematic characters, does so for the distinct identification of stated or implied "likeness".

As discussed earlier, it is obvious to imagine a character based presentation layer for Herz, but it is difficult to identify how Herz and Bingham can be brought together to match our disclosure without a significant originality being added.

6. (Part 4)

As per claim 2's "content" that "is filtered", please note that both Herz and Bingham are concerned with producing a filtered subset of the original content collection available. This "defined broadcast media and Internet content which is available for viewing" (claim 3) and in Herz, such "broadcast programming" is subject to targeting" "to a desired audience" (claim 4; see also claim 14). In particular, Herz discusses application to home shopping selections and the like (col 4, lines 39 - 65), as in claim 5.

Response: Please see earlier comments regarding general problem statements.

6. (Part 5)

Independent claim 6 is similar in many ways to independent claim 1 and therefore rejected for many reasons similar to those given above. Also in claim 6 is a "feedback means .. for storing character / user interaction information", this being used "for determining allocation of advertising". However, at least in Herz, feedback is obtained for updating the customer profiles in accordance with the video programming actually watched by the customer (col 6, line 43 - col 7, line 4), so that the ongoing use of the prior art selection mechanism also provides "feedback" to adapt the interface. As further suggested by Herz, "Advertising" then becomes customized. See also claims 10, 11, 17.

Response: Superficially, claims 6, 10, 11, and 17, and Herz, make use of interaction information to modify the content and information presented. Herz does so programmatically for a targeted user. We use the data to characterize the effectiveness of the character to mediate specified content and information and aid production and editorial decisions for the interface. The two methods are distinct.

6. (Part 6)

As for claim 7's "interaction information", which "includes" "times each affinity group character is selected, time viewers spend interacting with each character, number of users selecting each character", these are all features of the frequency with which the characters are selected in Bingham. Herz, also, acquires profile information to such an extent by noting the video programming actually watched. Thus, both the original and ongoing communications and choices of the user in each system are used to determine the content presented.

Response: In Bingham the interaction information is used to programmatically refine a user profile, whereas the interaction information in claim 7 is used to identify the effectiveness of a given character to mediate specified content and is used to refine the production of the affinity universe of characters as a whole. Thus, the feedback loops in Bingham and our disclosure play distinct roles. In particular, the feedback loop in Bingham will not modify the behavior, representation or presence of the predefined character - to do so would undermine the invention.

This last observation is the source of the mismatch between Herz and Bingham. Unlike our disclosure, the interaction information in Herz will programmatically modify the offered selections by the well defined means given. In our disclosure the information contributes to an editorial process that allows us to characterize the behavior of characters and identify their effectiveness and ability to mediate the specified content.

6. (Part 7)

Claim 8's "character's history of interaction with the user" reads upon Herz for similar reasons. The Bingham user can establish "a virtual relationship" with the "affinity character" he or she is most like.

Response: In claim 8, now amended, the "character's history of interaction with the user" permits the character to modify its behavior locally so as to honor its developing relationship with a user, or group of users, by avoiding repetitive presentation idioms, avoiding the presentation of content already presented in an earlier interaction, or by offering other content or second level content directly related and supplemental to the first content, or offering content or information that was incompletely reviewed earlier.

As previously noted there is no dependence on, or recognition of, "likeness" between a user and an affinity character in our disclosure. Otherwise, it is true to say that any interface with social properties, in particular any character based interface, will develop a "virtual relationship".

6. (Part 8)

As per claim 9, 12, 13, to the extent that "privacy" is "protected" and not invaded by the claimed invention, a similar point can be made concerning both Bingham, with metaphoric characters, and Herz, with the user dialogue and programming analysis, that shield some of the information gathering of the invention from the end user and thus create an appearance, at least, of "privacy."

Response: Please see the earlier discussion in response to examiners comments 4 (part 3).

6. (Part 9)

As per claim 15, any system using the type of server found at the information head-ends of Bingham or Herz will have "means for selecting and storing broadcast content for later playback".

Response: Claim 15 is defended based on arguments similar to those give above for claims 1 and 6.

In claim 15, the currently selected affinity character is used to determine what content is recorded to a local or non-local storage device so that the character may offer that content in later interactions. A selection from the content currently associated with the selected affinity character is recorded for later playback and its availability is added to the character's local database.

The content recorded in this way will vary as the dominant character changes either by explicit or automatic selection (for example, in a programmed request to record particular content or information). This permits the recordings selected to suit the diversity of users of the interface or tastes of a single user.

Certainly Herz and Bingham can apply their methodologies to the same selection problem. However, the methodologies and mechanisms in each and in combination are distinct.

6. (Part 10)

Independent claim 16 is similar to independent claim 1 and is rejected for reasons similar to those given above. Also, in Herz in view of Bingham, the use of characters shown in Bingham "relates to and further amplifies the broadcast media content" presented in conjunction with the "selected character". Anything made user-specific is essentially "amplified" to that user.

Response: Claim 16 is defended based on arguments similar to those give above for claims 1 and 6. Claim 16 permits the user to assemble an emblematic character of their own design.

7. The prior art made of record and not relied upon is considered pertinent to the applicant's disclosure.

Remaining US Patent documents made of record (see attached form PTO-892) generally relate to applicant's topic of selective access of media or information content. The particularly relevant disclosures of Khoo et al. (US #6,434,747 B1 19 January 2000) and Kayahara (US #6,405,206 B1, 30 November 1998) are cited for their potential applicability to those parts of the claimed invention in this CIP whose invention date does not

extend to the parent applications (i.e., if the date of invention is taken to be 14 February, 2000).

Response: Arguments similar to those made here in defense of our disclosure in view of Herz and Bingham may be applied to the other cited prior art. As briefly discussed at the beginning of these arguments, these disclosures do indeed attack broadly similar problem statements but the means, mechanisms and methodologies to do so are distinct.

If the examiner has questions related to these arguments please contact me by fax, toll free, at 877-849-0655. I will be happy to respond immediately.

Steven Ericsson Zenith